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7590  
01/14/2004  
Todd T. Taylor  
TAYLOR & AUST, P.C.  
142 S. Main St.  
P.O. Box 560  
Avilla, IN 46710

EXAMINER

COOLEY, CHARLES E

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/817,698

Applicant(s)

MAY ET AL.

Examiner

Charles E. Cooley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 2,7,24-29 and 37-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-23,30-36 and 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-43 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election of the species of Fig. 34 in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP ' 818.03(a))
2. Claims 2, 7, 24-29, and 37-42 are thereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 4.

### ***Priority***

3. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 119(e).

### ***Specification***

4. The title and amended abstract are acceptable.

### ***Double Patenting***

5. The terminal disclaimer filed 20 OCT 2003 has not been considered but is assumed proper for purposes of preparing this office action. The terminal disclaimer is

immediately being forwarded to the paralegal staff for consideration. The double patenting rejection is therefore conditionally withdrawn at this time.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 3-6, 8-23, 30-36, and 43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification is silent with respect to the subject matter added to claims 1, 9, 11, 14, 30, 34, and 35, namely a filter media disposed within said filter with the filter media including a plurality of filter surfaces sequentially arranged in a radially outward manner from said axis of rotation. The specification is also silent with respect to the filter media being in the form of "concentrically arranged cylinders" (newly presented claim 43).

A visual review and text search review of the instant specification found no support for filter surfaces sequentially arranged (whatever the scope of this is) or filter surfaces disposed in a radially outward manner from said axis of rotation. The only filter media that is considered supported is the spirally wrapped media (Fig. 3) and the cone

stack media (Fig. 29). Newly presented claim 43 recites that the filter media is one of a series of concentrically arranged cylinders, a spiral surface and a cone-stack. None of these claimed embodiments of the filter media appear to be encompassed by the subject matter added to claims 1, 9, 11, 14, 30, 34, and 35 because the cylinders are arranged concentrically to the axis (as opposed to radially), the disclosed spiral sheet is wrapped in a spiral manner about the axis (as opposed to radially), and a cone stack extends outwardly and downwardly (in a conical fashion) from the axis (as opposed to radially).

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1, 3-6, 8-23, 30-36, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The second paragraph of 35 U.S.C. § 112 requires a claim to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Under *In re Hammack*, 427 F.2d 1378, 166 USPQ 204 (CCPA 1970) and *In re Moore*, 169 USPQ 236 (CCPA 1971), claims must be analyzed to determine their metes and bounds so that it is clear from the claim language what subject matter the claims encompass. This analysis must be performed in light of the applicable prior art and the disclosure. The definiteness of the claims is important to allow others who wish to enter the market place to ascertain the boundaries of protection that are provided by the claims. *Ex parte Kristensen*, 10 USPQ 2d 1701, 1703 (BPAI 1989). One of the

purposes of 35 U.S.C. § 112, second paragraph, "is to provide those who would endeavor, in future enterprise, to approach the area circumscribed by the claims of a patent, with adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance." *In re Hammack*, supra. As set forth in *Amgen Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1217, 18 USPQ2d 1016, 1030 (Fed. Cir. 1991):

The statute requires that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." A decision as to whether a claim is invalid under this provision requires a determination whether those skilled in the art would understand what is claimed. See *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed. Cir. 1985) (claims must "reasonably apprise those skilled in the art" as to their scope and be "as precise as the subject matter permits.").

Since the specification is silent with respect to the configuration of filter media which is disposed within said filter and which includes a plurality of filter surfaces sequentially arranged in a radially outward manner from said axis of rotation, the metes and bounds of the claims is so unclear that the subject matter the claims encompass cannot be readily ascertained in view of the disclosure. It is not known what the phrase "sequentially arranged" attempts to describe in the context of the invention. As explained above, the embodiments of filter media that are disclosed in the instant specification cannot be reasonably described as being disposed in a radially outward manner from said axis of rotation.

Under 37 CFR 1.75, a dependent claim (claim 43) "shall be construed to include all of the limitations of the claim incorporated by reference into the dependent claim." Therefore, the subject matter of claim 43 is technically incorrect and mutually exclusive to claim 1 since an embodiment of filter media that is sequentially arranged in a radially outward manner from said axis of rotation and which comprises cylinders, a spiral surface, or a cone-stack is not contemplated by the instant disclosure and apparently could not exist in the prior art.

For purposes of furthering prosecution, the claims are being treated on the merits to the extent they are understood and considered definite.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 3, 4, 5, 6, 8, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Franzen et al. (US 5,364,335).

The patent to Franzen et al. discloses a centrifuge apparatus comprising a filter head 2; a stationary housing 59a, 59b, 59d connected to the filter head; a rotatable filter 56 disposed within the housing; the filter having an inlet 7 and an outlet 76; inherently replaceable filter media 66 which increases a filtration surface area and therefore

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improves the filtering efficiency of the solids constituent from the feed fluid (Col. 7, lines 15-23); electric motor drive 10a or 10b carried by the filter head with a rotatable output shaft 5 coupled with the filter for rotating the filter; fixed shafts 17a and 50; the filter media being in the form of a cone-stack 66 as seen in Figure 2 (an embodiment of the filter media recited in instant claim 43).

12. Claims 1, 3, 4, 5, 6, 8, 9, 10, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Hohmann et al. (US 4,891,041).

The patent to Hohmann et al. discloses in Figure 1 a centrifuge apparatus comprising a filter head 1; a stationary housing 13 connected to the filter head; a rotatable filter 5 disposed within the housing; the filter having an inlet (top part of 20) and an outlet 24; inherently replaceable filter media 21 which increases a filtration surface area and therefore improves the filtering efficiency of the solids constituent from the feed fluid (Col. 4, lines 4-20); the filter media 21 including a plurality of filter surfaces sequentially arranged in a radially outward manner with respect to the axis of rotation as seen in Figure 1; electric motor drive 2 carried by the filter head with a rotatable output shaft 3a coupled with the filter for rotating the filter; fixed shaft 20; and speed controller 28.

13. Claims 1, 3, 4, 5, 6, 8, 11, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Simonds (US 4,353,499).

The patent to Simonds discloses in Figure 1 a centrifuge apparatus coupled to an engine for filtering oil contained in the engine (col. 1, lines 10-19 and 30-37; col. 4, lines 35-47) and comprising a filter head 22; a stationary housing 12 connected to the filter



head; a rotatable filter 42 disposed within the housing; the filter having an inlet 96 and an outlet 112; replaceable (col. 5, lines 8-27) filter media 68, 78, 82, 86 which increases a filtration surface area and therefore improves the filtering efficiency of the solids constituent from the feed fluid (Col. 4, lines 4-20); the filter media 68, 78, 82, 86 including a plurality of filter surfaces sequentially arranged in a radially outward manner with respect to the axis of rotation as seen in Figure 1; electric motor drive 56 carried by the filter head with a rotatable output shaft 54 coupled with the filter for rotating the filter.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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16. Claims 9, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simonds (US 4,353,499) in view of Vado et al. (US 5,656,164).

Simonds discloses all of the recited subject matter as noted above with the exception of the speed controller. The patent to Vado et al. discloses a centrifuge apparatus comprising a filter head 14; a housing 2 connected to the filter head 14; a rotatable filter 9 disposed within the housing; the filter having an inlet 12 and an outlet 7; inherently replaceable filter media 11 for improving the filtering efficiency of the solids constituent from the feed fluid; electric motor drive 3 carried by the filter head with a rotatable output shaft 6 coupled with the filter for rotating the filter; and speed controller 17, 18. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the filter assembly of Simonds with a speed controller as disclosed by Vado et al. for the purpose of enabling adjustment of the speed of the drive motor (col. 2, lines 13-15 and lines 49-51).

17. Claims 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 30, 31, 32, 33, 34, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penny (US 5,904,841) in view of Vado et al. (US 5,656,164) and Simonds (US 4,353,499).

Penny (US 5,904,841) discloses a centrifuge apparatus comprising a filter head 101; a housing 14 connected to the filter head; a rotatable filter 12 disposed within the housing; the filter having an inlet 105 and an outlet 108; reaction drive 18; venturi vacuum device 112 in the filter head; check valve 125; engine 51; and fixed shaft 107. Penny (US 5,904,841) does not disclose the electric motor drive, controller, filter media,

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or pressure reducing device. The patent to Vado et al. (US 5,656,164) discloses a centrifuge apparatus comprising a filter head 14; a housing 2 connected to the filter head 14; a rotatable filter 9 disposed within the housing; the filter having an inlet 12 and an outlet 7; inherently replaceable filter media 11 for improving the filtering efficiency of the solids constituent from the feed fluid; electric motor drive 3 carried by the filter head with a rotatable output shaft 6 coupled with the filter for rotating the filter; and speed controller 17, 18. The patent to Simonds discloses in Figure 1 a centrifuge apparatus coupled to an engine for filtering oil contained in the engine (col. 1, lines 10-19 and 30-37; col. 4, lines 35-47) and comprising a filter head 22; a stationary housing 12 connected to the filter head; a rotatable filter 42 disposed within the housing; the filter having an inlet 96 and an outlet 112; replaceable (col. 5, lines 8-27) filter media 68, 78, 82, 86 which increases a filtration surface area and therefore improves the filtering efficiency of the solids constituent from the feed fluid (Col. 4, lines 4-20); the filter media 68, 78, 82, 86 including a plurality of filter surfaces sequentially arranged in a radially outward manner with respect to the axis of rotation as seen in Figure 1; electric motor drive 56 carried by the filter head with a rotatable output shaft 54 coupled with the filter for rotating the filter; and a flow restrictor pressure reducing device 34. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have substituted the drive in Penny with an electric motor drive controlled by a speed controller as disclosed by Vado et al. for the purpose of positively driving the filter at a selected speed as opposed to unreliable reaction drive which is not speed controllable (col. 2, lines 13-15 and 50-52 and col. 3, line 5) and to have provided Penny

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with a replaceable filter media in the filter and a pressure reducing device as disclosed by Simonds for the purpose of trapping solids in the filter assembly (col. 1, line 64 through col. 2, line 1) and to control the flow of fluid (oil) into the filter assembly (col. 4, lines 47-49).

With respect to claim 33, Penny does not show the filter attached to the engine. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have attached the filter to the engine, e.g., to form an integrated assembly, since it has been held that rearranging parts of an invention which rearrangement does not modify the operation of the device involves only routine skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) and MPEP 2144.04.

### ***Response to Amendment***

18. Applicant's arguments with respect to the pending claims have been considered but are deemed to be moot in view of the new grounds of rejection necessitated by amendment.

19. Applicant's arguments filed 20 OCT 2003 have been fully considered but they are not persuasive.

Applicant is reminded that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868

F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Turning to the rejection of the claims under 35 U.S.C. § 102(b), it is noted that the terminology in a pending application's claims is to be given its broadest reasonable interpretation (*In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)) and limitations from a pending application's specification will not be read into the claims (*Sjolund v. Musland*, 847 F.2d 1573, 1581-82, 6 USPQ2d 2020, 2027 (Fed. Cir. 1988)). Anticipation under 35 U.S.C. § 102(b) is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of a claimed invention. See *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570, 7 USPQ2d 1057, 1064 (Fed. Cir.), cert. denied, 488 U.S. 892 (1988); *RCA Corp. v. Applied Digital Data Sys., Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). Moreover, anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or the recognition of properties that are inherently possessed by the prior art reference. *Verdegaal Brothers Inc. v. Union Oil Co. of California*, 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir. 1987), cert. denied, 484 U.S. 827 (1987). A prior art reference anticipates the subject matter of a claim when that reference discloses each and every element set forth in the claim (*In re Paulsen*, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994) and *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990)); however, the law of anticipation does not require that the reference teach what Applicant is claiming, but only that the claims "read on" something disclosed in the

reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984) (and overruled in part on another issue), *SRI Intel v. Matsushita Elec. Corp. Of Am.*, 775 F.2d 1107, 1118, 227 USPQ 577, 583 (Fed. Cir. 1985). Also, a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention. See *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), *cert. denied*, 116 S.Ct. 1362 (1996), quoting from *In re LeGrice*, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962).

With respect to the applied prior art under 35 U.S.C. § 102(b), the examiner has explicitly demonstrated how the references disclose each and every element set forth in the claims and how the pending claims read on the disclosure of the reference, hence the rejection is considered proper.

Applicant's other arguments are drawn to the type of filter media which is either considered new matter (the concentric cylinders) or mutually exclusive to the scope of the pending claims (the spirally wrapper media which cannot be considered sequentially arranged in a radially outward manner from the axis of rotation). Surprisingly, Applicant argues a prior art patent (namely Franzen) does not disclose the filter media of claim 1 for example, yet new claim 43 (which depends directly from claim 1) recites that the filter media may be a cone-stack which is clearly present in Franzen! Nevertheless, the broad recitation of radially disposed filter media is clearly taught by the prior art as expressed in the rejections and the newly cited prior art attached to this office action.

***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art discloses centrifuges/filtering assemblies with radially disposed filtering media within a rotatable filter assembly.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in cursive script, appearing to read "Charles", followed by a long, horizontal, wavy flourish.

Charles E. Cooley  
Primary Examiner  
Art Unit 1723

7 January 2004